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10/663,804	09/17/2003	Atsushi Togami	242924US2	3764

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EXAMINER	
MENBERU, BENIYAM	

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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/663,804	TOGAMI ET AL.	
	Examiner	Art Unit	
	Beniyam Menberu	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 September 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/19/07,2/16/05,2/10/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

It does not include the notary's seal and venue.

Specification

1. The disclosure is objected to because of the following informalities:

On page 6, line 11, "(a scanner unit) 1" should be "(a scanner unit) 31".

On page 6, line 14, "facsimile controller 9" should be "facsimile controller 13".

On page 7, line 21, "scanner unit 2" should be "read unit 31".

On page 9, lines 17-18, "printer controller 4" should be "printer controller 34".

On page 13, line 5, "CMTK" should be "CMYK".

On page 15, line 3, threshold "th_2" is not related to color difference. It should be related to a number of pixels.

On page 36, lines 14 and 19, "9-1" and "9-2" should be "9-A" and "9-B" respectively.

On page 37, lines 8-9, reference 31, 32, 33 should be adjusted according to paragraph 3-5 below of this office action (Other pages refer to this reference numbers).

Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "1" on page 7, line 4; "8" on page 13, line 14. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "31" has been used to designate both "Read Unit" and "Tone Processing". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each

drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "32" has been used to designate both "Scanner Correction Unit" and "Format Processing". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "33" has been used to designate both "Fixed Length Multi-Level Compressor" and "I/F Processing". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 21, 22, 23 in Figures 9A, 9B. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

7. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because there are minor gaps in the printing for example in Figure 1, where white line cuts through reference 11 and also another example is in Figure 6 where horizontal white line is present. Similar problems occur in other Figures . Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 22 and 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 22 discloses "A computer program" which is non-statutory. Claim 22, line 1 should read "A computer readable medium storing a computer program making a computer execute:"

Claim 23, lines 1-2 should read "A computer readable medium storing a computer program, the computer program making a computer execute:".

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose "the content determination unit, the image processing unit, and the transmission unit operate independently of the scanner unit, in separate operation modes, respectively."

12. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose conversion of color to monochrome when image is color data.

13. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose "a correlation detecting unit that detects whether there is a correlation between a plurality of image data".

14. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose "a correlation detecting unit that detects whether there is a correlation between a plurality of image data".

Claim Objections

15. Claim 10 is objected to because of the following informalities: On line 1 "claim1" should be "claim 1". Appropriate correction is required.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

17. Claims 1, 2, 3, 6, 7, 13, 14, 15, and 20-23 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent Application Publication No. US. 2002/0052974 A1 to Saito.

Regarding claims 1 and 21-23 (page 4, paragraph 88-89), Saito discloses an image processing apparatus comprising:

a content determination unit that determines content of image processing to be applied to each of a plurality of image data (page 2, paragraph 40, 43, 44, 45);

an image processing unit that applies the image processing based on the content determined to corresponding image data (page 3, paragraph 48-51); and

a transmission unit that transmits the image data processed to an external unit (page 3, paragraph 52-54, 57-59).

Regarding claim 2, Saito teaches all the limitations of claim 1. Further Saito discloses the image processing apparatus according to claim 1, further comprising a color determination unit that determines whether the image data is color image data or monochrome image data (page 2, paragraph 45, page 3, paragraph 48, 50), wherein the content determination unit determines the content, based on a result of determination by the color determination unit (page 3, paragraph 48, 50, 51).

Regarding claim 3, Saito teaches all the limitations of claim 1. Further Saito discloses the image processing apparatus according to claim. 1, further comprising a scanner unit that reads out the image data from a recording medium (page 2, paragraph 42), wherein the content determination unit (page 3, paragraph 48, 3001), the image processing unit (page 3, paragraph 50, formatting), and the transmission unit operate independently of the scanner unit, in separate operation modes (page 2, paragraph 33), respectively (page 2, paragraph 43-46; The image data is stored in 2004; page 3, paragraph 48-51,58; The transmission and formatting is using data from memory 2004 without directly using scanner data.).

Regarding claim 6, Saito teaches all the limitations of claim 2. Further Saito discloses the image processing apparatus according to claim 2, wherein the image processing includes compression processing , and the content determination unit determines content of the compression processing based on the result of the determination by the color determination unit (page 2, paragraph 43, 44).

Regarding claim 7, Saito teaches all the limitations of claim 1. Further Saito discloses the image processing apparatus according to claim 1, wherein the image processing includes general format conversion to convert the image data into image data that is available in a general information processing apparatus (page 3, paragraph 50, 51, 58).

Regarding claim 13, Saito teaches all the limitations of claim 1. Further Saito disclose the image processing apparatus according to claim 1, further comprising a correlation detecting unit that detects whether there is a correlation between a plurality of image data, wherein the content determination unit determines to apply same image processing to the plurality of image data upon the correlation detecting unit detecting

that there is the correlation (page 3, paragraph 50,51; "one file" in paragraph 51 reads on "same" processing).

Regarding claim 14, Saito teaches all the limitations of claim 13. Further Saito disclose the image processing apparatus according to claim 13; further comprising an instruction reception unit that receives an instruction, which indicates execution of the same image processing to the plurality of image data, from a user, (page 3, paragraph 48, user inputs a "format" for the images) wherein the content determination unit determines to apply the same image processing to the plurality of image data upon the instruction reception unit receiving the instruction (page 3, paragraph 50, 51, 58; conversion to one format reads on "same processing").

Regarding claim 15, Saito teaches all the limitations of claim 1. Further Saito disclose the image processing apparatus according to claim 1, further comprising an instruction reception unit that receives instruction information indicating an instruction from a user, wherein the content determination unit determines the content of the image processing, based on the instruction information for each image data (page 3, paragraph 48, 58; "format").

Regarding claim 20, Saito teaches all the limitations of claim 1. Further Saito discloses the image processing apparatus according to claim 1, further comprising an

image forming unit that forms an image on a recording medium based on the image data after the image processing (page 2, paragraph 30, 31; 2095, 2090).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US. 2002/0052974 A1 to Saito in view of U.S. Patent No. 7046394 to Yasunobu.

Regarding claim 4, Saito teaches all the limitations of claim 2. However Saito does not disclose the image processing apparatus according to claim 2, wherein when the color determination unit determines that the image data is color image data, the content determination unit determines the content to be conversion of the color image data into monochrome image data.

Yasunobu discloses wherein when the color determination unit determines that the image data is color image data the content determination unit determines the content to be conversion of the color image data into monochrome image data (column 12, lines 31-41).

Saito and Yasunobu are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the monochrome conversion of Yasunobu with the system of Saito to implement monochrome conversion of color image data.

The motivation to combine the reference is clear because when receiving system is monochrome device it is necessary to convert color to monochrome format (column 2, lines 10-14).

20. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US. 2002/0052974 A1 to Saito in view of U.S. Patent No. 6426809 to Hayashi et al.

Regarding claim 5, Saito teaches all the limitations of claim 2. However Saito does not disclose the image processing apparatus according to claim 2, wherein when the color determination unit determines that the image data is monochrome image data, the content determination unit determines the content to be binarization of the image data.

Hayashi et al disclose wherein when the color determination unit determines that the image data is monochrome image data, the content determination unit determines the content to be binarization of the image data (Figure 2, step s205, s211, s213; column 7, lines 56-67; column 8, lines 1-6).

Saito and Hayashi et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the binarization system of Hayashi et al to implement binarization of monochromatic image data.

The motivation to combine the reference is clear because the system of Hayashi et al can transmit color and mochrome image data with quality and lower data amount respectively (column 1, lines 63-67; column 2, lines 31-40).

21. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US. 2002/0052974 A1 to Saito in view of U.S. Patent No. 6449060 to Kawai et al.

Regarding claim 8, Saito teaches all the limitations of claim 1. However Saito does not disclose the image processing apparatus according to claim: 1, wherein the image processing includes color conversion processing, and the content determination unit determines to perform the color conversion processing based on the result of the determination by the color determination unit.

Kawai et al disclose wherein the image processing includes color conversion processing, and the content determination unit determines to perform the color conversion processing based on the result of the determination by the color determination unit (column 15, lines 26-49).

Saito and Kawai et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the color determination based color conversion of Kawai et al with the system of Saito to implement color conversion depending on the color of images.

The motivation to combine the reference is clear because it can lower cost associated with image processing (column 2, lines 42-51; column 15, lines 50-59).

22. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US. 2002/0052974 A1 to Saito in view of U.S. Patent No. 6449060 to Kawai et al further in view of U.S. Patent No. 6788339 to Ikeda.

Regarding claim 9, Saito in view of Kawai et al teaches all the limitations of claim 8. However Saito in view of Kawai et al does not disclose the image processing apparatus according to claim 8, wherein the content determination unit changes a parameter for the color conversion processing for each image data.

Ikeda discloses wherein the content determination unit changes a parameter for the color conversion processing for each image data (column 6, lines 8-21; column 17, lines 40-67; column 18, lines 1-5).

Saito, Kawai et al, and Ikeda are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the conversion system of Ikeda with the system of Saito in view of Kawai et al to implement variable color conversion parameters.

The motivation to combine the reference is clear because color printing most appropriate to the color parameter can be outputted (column 17, lines 66-67; column 18, lines 26-34).

23. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US. 2002/0052974 A1 to Saito in view of U.S. Patent No. 5446476 to Kouzaki.

Regarding claim 10, Saito teaches all the limitations of claim 1. However Saito does not disclose the image processing apparatus according to claim1, wherein the image processing includes gamma correction processing.

Kouzaki discloses wherein the image processing includes gamma correction processing (column 5, lines 10-19; reference 89).

Saito and Kouzaki are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the gamma processing of Kouzaki to implement gamma processing of image data.

The motivation to combine the reference is clear because the system of Kouzaki can process image data appropriate for the location of the user through the modification of gamma processing (column 1, lines 45-64).

Regarding claim 11, Saito in view of Kouzaki teaches all the limitations of claim 10. Further Kouzaki disclose the image processing apparatus according to claim 10, wherein the content determination unit changes gamma correction data used for the gamma correction processing for each image data (column 7, lines 35-63).

24. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US. 2002/0052974 A1 to Saito in view of U.S. Patent Application Publication No. US 2003/0011815 A1 to Kita.

Regarding claim 12, Saito teaches all the limitations of claim 1. However Saito does not disclose wherein the image processing includes halftone processing.

Kita discloses wherein the image processing includes halftone processing (page 3, paragraph 75).

Saito and Kita are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the halftoning of Kita to implement halftoning of image data.

The motivation to combine the reference is clear because the system of Kita provides selection of appropriate processing for image data before printing (page 3, paragraph 75, 77, 78, page 4, paragraph 80; Figure 3, A-4,A-5, A-8, A-9, A-13).

25. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2002/0052974 A1 to Saito in view of U.S. Patent Application Publication No. US 2004/0234148 A1 to Yamada.

Regarding claim 16, Saito teaches all the limitations of claim 15. However Saito does not disclose the image processing apparatus according to claim 15, wherein the image processing includes background removal processing and color space conversion, the instruction reception unit receives the instruction information on the background removal processing for the image data, and the content determination unit changes a parameter for the color space conversion based on the instruction information.

Yamada discloses wherein the image processing includes background removal processing and color space conversion (page 1, paragraph 1; page 3, paragraph 27), the instruction reception unit receives the instruction information on the background removal processing for the image data (page 6, paragraph 83; page 9, paragraph 112), and the content determination unit changes a parameter for the color space conversion based on the instruction information (page 12, paragraph 144).

Saito and Yamada are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the background removing system of Yamada with the system of Saito to implement color conversion based on background removal.

The motivation to combine the reference is clear because noise reduction can be achieved in image processing (page 1, paragraph 1)

26. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2002/0052974 A1 to Saito in view of U.S. Patent No. 6480624 to Horie et al.

Regarding claim 17, Saito teaches all the limitations of claim 15. However Saito does not disclose the image processing apparatus according to claim 15, wherein the image processing further includes gamma correction, the instruction reception unit receives the instruction information on the background removal processing for the image data, and the content determination unit changes input/output characteristic curve for the gamma correction based on the instruction information.

Horie et al disclose wherein the image processing further includes gamma correction, the instruction reception unit receives the instruction information on the background removal processing for the image data (Figure 2, reference 13, 14; column 6, lines 35-67; column 7, lines 3-15), and the content determination unit changes

input/output characteristic curve for the gamma correction based on the instruction information (column 10, lines 48-63; column 23, lines 20-29).

Saito and Horie et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the gamma correction of Horie et al with the system of Saito to implement gamma correction processing based on background removal instruction.

The motivation to combine the reference is clear because the system of Horie et al can provide appropriate image for the background based on the gamma processing (column 11, lines 37-28-35).

27. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2002/0052974 A1 to Saito in view of U.S. Patent Application Publication No. US 2002/0051210 A1 to Ostromoukhov.

Regarding claim 18, Saito teaches all the limitations of claim 15. However Saito does not disclose the image processing apparatus according to claim 15, wherein the image processing further includes halftone processing, the instruction reception unit receives the instruction information on the background removal processing for the image data, and the content determination unit changes the content of the halftone processing based on the instruction information.

Ostromoukhov discloses wherein the image processing further includes halftone processing (page 4, paragraph 42), the instruction reception unit receives the instruction information (Figure 8, reference s802, 803; "Gradient") on the background removal

processing for the image data (page 1, paragraph 4), and the content determination unit changes the content of the halftone processing based on the instruction information (page 5, paragraph 56-58).

Saito and Ostromoukhov are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the halftoning process of Ostromoukhov with the system of Saito to implement halftone variation based on background removal processing.

The motivation to combine the reference is clear because the system of Ostromoukhov provides dynamic method for forming halftone (page 2, paragraph 17, 18).

28. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2002/0052974 A1 to Saito in view of U.S. Patent No. 5444544 to Oka et al.

Regarding claim 19, Saito teaches all the limitations of claim 15. However Saito does not disclose the image processing apparatus according to claim 15, further comprising a correlation detecting unit that detects whether there is a correlation between a plurality of image data, wherein the content determination unit determines to apply same image processing to the plurality of image data upon the instruction reception unit receiving different instruction information for each image data and upon the correlation detecting unit detecting that there is the correlation.

Oka et al disclose comprising a correlation detecting unit that detects whether there is a correlation between a plurality of image data (column 5, lines 14-23, 32-35; "stepwise" variation of parameter is the correlation), wherein the content determination unit determines to apply same image processing to the plurality of image data upon the instruction reception unit receiving different instruction information for each image data and upon the correlation detecting unit detecting that there is the correlation (column 5, lines 24-57; column 6, lines 15-36).

Saito and Oka et al are combinable because they are in the similar problem area of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the image processing of Oka et al with the system of Saito to implement same image processing based on correlation.

The motivation to combine the reference is clear because provides efficient method for printing of image (column 2, lines 29-39).

Other Prior Art Cited

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

UK Patent Application GB 2410390A to Wimpenny et al discloses image transmission.

U.S. Patent Application Publication No. US 2007/0115503 A1 to Nakami et al disclose image processor with memory control.

U.S. Patent No. 6751346 to Shimizu disclose user controlled image processor.

U.S. Patent No. 5734390 to Sakaizawa disclose printer.

U.S. Patent No. 6693721 to Suzuki disclose image processor.

U.S. Patent No. 6313924 to Kanamori disclose printing system with correction capability.

U.S. Patent Application Publication No. US 2001/0019416 A1 to Monty et al disclose image processor with user input.

U.S. Patent Application Publication No. US 2002/0145752 A1 to Hanabusa et al disclose image transmission system.

U.S. Patent No. 6989908 to Ito disclose image input/output system.

U.S. Patent No. 6717585 to Kagawa et al disclose color transformation system.

U.S. Patent No. 6900911 to Yamazaki disclose image adjusting system.

U.S. Patent No. 6079885 to Sano disclose printer.

U.S. Patent Application Publication No. US 2001/0048774 A1 to Seki et al disclose imaging device.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571) 272-7471. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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07/21/2007

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